

REMARKS

Claim 29 has been amended based on the disclosure in paragraph [0015] of the published application and to incorporate the recitations of claim 40. Claim 40 has been canceled accordingly.

Entry of the above amendment is respectfully requested.

Preliminarily, Applicant thanks the Examiner for the personal interview conducted with Applicant's representative on May 29, 2009. Applicant believes that the interview advanced the prosecution of this case. A Statement of Substance of Interview is submitted herewith.

In view of the discussion at the interview, Applicant submits herewith an accurate English translation of Example 2 and Table 1 of the priority document (paragraphs 10032] and [0037] of the priority document). Accordingly, Applicant submits that the amendment to Table 1 made on May 12, 2009 is supported by the priority document.

Also, in view of the discussion at the interview, Applicant has conducted additional experimentation showing that unexpected superior effects of the invention can be obtained by devices using the red light-emitting Ir complex disclosed in Figs. 31, 37 and 43 of Thompson et al, and Applicant submits herewith an executed Rule 132 Declaration directed to that additional experimentation. The experimental data set forth in the Declaration are discussed below.

Additional Examples 17-19

Devices were prepared and evaluated by repeating Example 2 of the present specification except changing the red light-emitting material, bis(2-phenylquinoline)acetylacetonatoiridium complex (R-2), to the red light-emitting material shown for Additional Examples 17 to 19 in Table 3 set forth below.

Additional Examples 20-22

Devices were prepared and evaluated by repeating Example 4 of the present specification except changing the red light-emitting material, bis(2-phenylquinoline)acetylacetonatoiridium complex (R-2), to the red light-emitting material shown for Additional Examples 20 to 22 in Table 3.

Additional Comparative Examples 5-7

Devices were prepared and evaluated by repeating Additional Comparative Example 3 previously submitted except changing the red light-emitting material, bis(2-phenylquinoline)acetylacetonatoiridium complex (R-2), to the red light-emitting material shown for Additional Comparative Examples 5 to 7 in Table 3.

Table 3

	Blue Light-emitting Material	Green Light-emitting Material	Red Light-emitting Material	Lmax (Cd/m2)	Vmax (V)	P (Cd/A)	Light-emitting Wavelength Peak
Additional Example 17	B-1	G-1 (Phosphorescent)	R-14 (Phosphorescent)	42000	10	27	451, 515, 599
Additional Example 18	B-1	G-1 (Phosphorescent)	R-15 (Phosphorescent)	38000	11	24	455, 514, 571
Additional Example 19	B-1	G-1 (Phosphorescent)	R-16 (Phosphorescent)	35000	10	19	453, 515, 637
Additional Example 20	B-2	G-1 (Phosphorescent)	R-14 (Phosphorescent)	72000	10	41	482, 515, 600
Additional Example 21	B-2	G-1 (Phosphorescent)	R-15 (Phosphorescent)	68000	10	42	482, 515, 572
Additional Example 22	B-2	G-1 (Phosphorescent)	R-16 (Phosphorescent)	64000	10	39	482, 515, 638
Additional Comparative Example 5	None	None	R-14 (Phosphorescent)	5500	14	3.5	599
Additional Comparative Example 6	None	None	R-15 (Phosphorescent)	5700	14	3.2	572
Additional Comparative Example 7	None	None	R-16 (Phosphorescent)	3800	15	2.5	638

R-14: Iridium(III) bis(benzothienylpyridine)acetylacetonate [BTHPIr] (from Fig.31 in Thompson)
R-15: Iridium(III) bis(2-(1-naphthyl)benzoxazole)acetylacetonate [BONIr] (from Fig.37 in Thompson)
R-16: Bis(2-phenylbenzothiazole)Iridium 8-Hydroxyquinolate [BTIrQ] (from Fig.43 in Thompson)

As can be seen from the results presented in Table 3, the present invention, with its orthometallated complex requirements as recited in the present claims, provides a very high maximum luminance L_{max} and a very high light-emitting efficiency P at a low driving voltage V_{max} for a device which contains a blue light-emitting material, a green light-emitting material, and a red light-emitting material as compared to a device which contains a red light-emitting material of Thompson but does not satisfy all the requirements recited in the present claims.

Moreover, the results for Additional Examples 17-19, Additional Examples 20-22, and Additional Comparative Examples 5-7 basically correspond to the results respectively provided by Example 2, Example 4, and Additional Comparative Example 3 presented previously, and thus confirm those results and provide further evidence of unexpected superiority such that the evidence overall is commensurate in scope with the claimed invention.

Thus, the Declarant concludes that the present invention provides unexpectedly superior results.

Further, Applicant submits that the new Declaration evidence considered in conjunction with the evidence of record demonstrates the unexpected superiority of the invention as recited in the amended claims. With respect to claim 29 in particular, Applicant notes that G-15 in the Declaration filed May 12, 2009 contained platinum rather than iridium, and thus Additional Example 5 (which included G-15) supports the unexpected superiority of the platinum recitation in claim 29 (in the event that G-15 was invented after the present application was filed, Applicant is not aware of any case law which indicates that this is an issue for purposes of showing unexpected results).

Thus, Applicant submits that because the metal forming the green light-emitting material which is an orthometallated complex is limited to iridium or platinum and the metal forming the

red light-emitting material which is an orthometallated complex is limited to iridium in amended claim 29, the overall evidence is commensurate with the scope of amended claim 29.

Accordingly, Applicant submits that amended claim 29 and the claims dependent therefrom are not obvious over the cited art.

Moreover, with respect to claim 44 in particular, Applicant submits that Thompson does not teach or suggest the subject matter of claim 44. With respect to Igarashi, since Igarashi is only prior art under 35 U.S.C. 102(e) for purposes of this obviousness rejection, Applicant states that the subject matter of Igarashi and the presently claimed invention were, at the time the presently claimed invention was made, owned by or subject to an obligation of assignment to Fuji Photo Film Co., Ltd. (now FUJIFILM Corporation). Applicant submits that this statement of common ownership per 35 U.S.C. 103(c) overcomes any obviousness rejection including Igarashi.

Thus, withdrawal of the obviousness rejections is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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[0032]

Example 2

A light-emitting device of the invention was prepared in the same manner as in Example 1 except for using as a red light-emitting material bis(2-phenylquinoline)acetylacetonatoiridium complex in place of 4-(dicyanomethylene)-2-methyl-6-(4-dimethylaminostyryl)-4H-pyran (red light-emitting material), and evaluated in the same manner as in Example 1. Results thus obtained are shown in Table 1.

[0037]

[TABLE 1]

	L_{\max} (Cd/m ²)	V_{\max} (V)	P (Cd/A)	Peak Wavelength of Emitted Light (nm)
Example 1	23000	11	18	450, 515, 604
Example 2	38000	10	25	450, 515, 599
Comparative Example 1	2400	14	1.5	450, 520, 603
Example 3	56000	11	38	482, 515, 604
Example 4	78000	10	45	485, 515, 600
Comparative Example 2	5200	14	2.5	482, 516, 605